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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

FERGUSON SAMRETH, MARISSA LIANA

ART UNIT

PAPER NUMBER

2854

MAIL DATE

DELIVERY MODE

05/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/602,744	BAEK ET AL.	
	Examiner	Art Unit	
	Marissa L. Ferguson-Samreth	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 9-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "transferring some of the colored inks filled in the grooves of the cliché from the cliché" in line 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9, 14 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the limitation "transferring some of the colored inks filled in the grooves of the cliché from the cliché" is not supported in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Higuchi (JP 2001¹66322).

Regarding claim 10, Higuchi teaches a substrate (12) which is divided into an active area (18) for realizing image and a dummy area (19) for not realizing image; Red, Green and Blue color filters on the active area and the dummy area of the substrate

(17a and Figure 1) and a black matrix (17b) that has the capability for defining sub-pixels of red, green and blue in the active area and in the dummy area on the substrate (Figure 1).

Regarding claim 11, Higuchi teaches wherein Red, Green and Blue color filters (17a) on the dummy area (19) of the substrate (12) are in at least one or more pixels when it is assumed that respective red, green and blue sub-pixels are defined as one pixel (Abstract and Solution).

Regarding claim 12, Higuchi teaches wherein the black matrix (17b) is formed on the substrate (12) between the Red, Green, and Blue (17a) colored filters of the active area (Figure 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi (JP 2001166322) in view of Hayashi et al. (US Patent 2003/0118922).

Higuchi teaches the claimed invention with the exception of forming a black matrix between the Red, Green and Blue ink/filter colored on the dummy area. Hayashi et al. teaches a black matrix (6) formed between colored filters (7RGB) in a non-display area (Figure 2 and paragraph 222). It would have been obvious at the time the

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invention was to a person having ordinary skill in the art to further modify the invention as taught by Higuchi to include forming a black matrix in between a colored filter in a dummy area as taught by Hayashiet al., since Hayashi et al. teaches that it is advantageous to exhibit a superior display quality.

5. Claims 9,14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (US Patent 5,514,503) in view of Kugo et al. (US Patent 4,673,252) and Aoki et al. (JP 11-326621).

Evans et al. teaches providing a cliché (14) having a plurality of grooves (Figure 2 and Column 5, Lines 36-60), filling Red, Green and Blue colored inks into the grooves of the cliché (Column 6, Lines 7-10), repositioning the Red, Green and Blue colored inks (Column 6, Lines 11-13), transferring some of the colored inks filled in the grooves of the cliché onto a printing roll (14) by rotating the printing roll (14) on the cliché in which the Red, Green and Blue colored inks are filled (Column 9, Lines 20-29 and note that no process is perfect therefore it would be evident that some ink would be left over in the cliché) and applying the Red, Green and Blue colored inks on the printing roll onto of the substrate by rotating the printing roll across the substrate (column 10, Lines 38-45). However, he does not explicitly disclose providing a substrate, which is divided into an active area for realizing image and a dummy area for not realizing image areas and wherein the Red, Green, Blue colored inks are co-planar in the dummy area and forming a black matrix on the substrate between the Red, Green and Blue colored inks of the active area and the dummy area.

Kugo et al. teaches a liquid crystal display wherein a substrate of color filters are divided into an active and dummy area and are co-planar (Column 5, Lines 62-68 and Column 6, Lines 1-18, Figure 6 and Figure 9),.

It would have been obvious at the time the invention was to a person having ordinary skill in the art to modify the invention as taught by Evans to include an active area and a dummy area as taught by Kugo et al., since Kugo et al. teaches that it is advantageous to greatly enhance the legibility and appearance of the display.

However, Evans et al. and Kugo et al. do not explicitly disclose forming a black matrix between the Red, Green and Blue ink/filter colored on the dummy area.

Aoki et al. teaches a black matrix (28) formed between colored filters (27-1- 27-3). It would have been obvious at the time the invention was to a person having ordinary skill in the art to further modify the invention as taught by Evans to include forming a black matrix in between a colored filter as taught by Aoki et al., since Aoki et al. teaches that it is advantageous to prevent image distortion.

Allowable Subject Matter

6. Claims 1-8 are allowed.
7. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 1, the prior art does not teach or render obvious a method of fabricating a color filter for a LCD device comprising providing a substrate which is divided into an active area that contains pixels for realizing an image and dummy area in the periphery of the active area that does not contain pixels for realizing an image.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L. Ferguson-Samreth whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other(F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marissa L Ferguson-Samreth
Examiner
Art Unit 2854

MFS


JUDY NGUYEN
SUPERVISORY PATENT EXAMINER